CLAIMS

What is claimed is:

1.   A method for presenting and controlling a digital background for a real-world
setting in a computer display, the method comprising the following operations:

      presenting a background;

      inputting an operator's choice of action or inaction to a situation state module;

      updating a current state based on the operator's action or inaction; and

      using the current state by a decision logic to determine how to control the
background in the setting.

2.   The method of claim 1, further comprising the operation of sending a selection of
control of the background to a display.

3.   The method of claim 1, further comprising the operation of interacting with a
video controller to modify the background after utilizing the decision logic.

4.   The method of claim 1, wherein the operation of presenting the background
comprises continuously streaming video.

5.   The method of claim 1, wherein the background is a digital background, and
wherein the operation of presenting the background comprises providing a series of
concatenated still pictures generated to provide life-like movement in the background.

6.   The method of claim 1, further comprising the following operations:

      using the current state by the decision logic to determine a response in the setting
by a character; and

      modifying the character.

7. The method of claim 1, further comprising the operation of presenting a series of individual video clips that are joined into the appearance of a continuous streaming image of a character.

8. The method of claim 1, further comprising the operation of presenting a three-dimensional representation of a playing area.

9. The method of claim 1, further comprising the operation of presenting a two-dimensional representation of a playing area.

10. The method of claim 1, further comprising the following operations:

presenting a three-dimensional representation of a playing area; and

simultaneously presenting a two-dimensional representation of the playing area.

11. A method for presenting a character for an interaction, the method comprising the following operations:

presenting a series of individual video clips that are joined into the appearance of a continuous streaming image of the character;

inputting a human operator's choice of action or the operator's inaction;

updating a current state based on the operator's action or inaction;

using the current state by a decision logic to determine a response in a setting by the character; and

modifying the character.

12. The method of claim 11, further comprising the operation of controlling the character in response to situations in a game.

13. The method of claim 11, further comprising the operation of controlling the character in response to the time between moves by the human operator.

14.   The method of claim 11, further comprising the operation of providing motion of the character in a time-dependent manner based on interaction with the human operator.

5   15.   The method of claim 11, further comprising the operation of using a series of triggers to control the character with responses that are different depending on a game situation.

16.   The method of claim 11, further comprising the operation of using a series of
10   triggers to control the character with responses that are different depending on a game situation, and that are continuous, wherein the responses include movements both during and between game moves of the character and the human operator.

17.   The method of claim 11, further comprising the operation of using a series of
15   triggers for controlling the character in response to game situations, wherein the game situations include actions and inaction by the human operator, and include the time between moves by the human operator.

18.   The method of claim 11, further comprising the operation of using triggers to
20   control responses of the character, wherein the triggers include the human operator's sequence of moves during a game.

19.   The method of claim 11, further comprising the operation of using triggers to control responses of the character, wherein the triggers include the human operator's
25   strategic position in a game.

20.   The method of claim 11, wherein the operation of modifying the character comprises interacting decision logic with a video controller.

21.   The method of claim 11, wherein the operation of modifying the character comprises making a direct change to the character.

22.   The method of claim 11, wherein the operation of modifying the character comprises using a library of videos.

23.   The method of claim 11, wherein the character is an opponent in a game.

24.   The method of claim 11, further comprising the operation of continuously streaming video to present a background.

25.   The method of claim 11, further comprising the following operations:
        using the current state by the decision logic to determine how to control a background in the setting;
                sending a selection of control of the background to a display; and
                continuously streaming video to present the background.

26.   The method of claim 11, further comprising the operation of presenting a digital background by providing a series of concatenated still pictures generated to provide life-like movement in the background.

27.   The method of claim 11, further comprising the operation of presenting a three-dimensional representation of a playing area.

28.   The method of claim 11, further comprising the operation of presenting a two-dimensional representation of a playing area.

29.   The method of claim 11, further comprising the following operations:
                presenting a three-dimensional representation of a playing area; and

simultaneously presenting a two-dimensional representation of the playing area; and

wherein the three-dimensional representation and the two-dimensional representation are presented on a single video screen.

5

30.   A method for presenting a character for an interaction, the method comprising the following operations:

presenting a series of individual animation clips that are joined into the appearance of a continuous streaming image of a character;

10
inputting an operator's choice of action or the operator's inaction;

updating a current state based on the operator's action or inaction;

using the current state by a decision logic to determine a response in a setting by the character; and

modifying the character.

15

31.   The method of claim 30, wherein the operation of modifying the character comprises using a library of animations.

32.   The method of claim 30, wherein the animation is cell animation.

20

33.   The method of claim 30, wherein the animation is clay animation.

34.   The method of claim 30, further comprising the operation of using the current state by the decision logic to determine how to control a background in the setting.

25

35.   The method of claim 30, further comprising the following operations:

presenting a three-dimensional representation of a playing area; and

presenting a two-dimensional representation of the playing area; and

wherein the three-dimensional representation and the two-dimensional representation are simultaneously presented on a single video screen.

36. A method for presenting a virtual reality setting for transferring information pertaining to a gaming situation to a human operator, the method comprising the following operations:

    presenting a three-dimensional representation of a playing area; and

    presenting a two-dimensional representation of the playing area; and

    wherein the three-dimensional representation and the two-dimensional representation are simultaneously presented on a single video screen to allow the human operator to simultaneously observe action in both two and three dimensions.

37. The method of claim 36, wherein:

    the three-dimensional view is a side view of the playing area as would be seen in real life; and

    the two-dimensional view is a top-down view.

38. The method of claim 37, wherein the two-dimensional view is see-through.

39. The method of claim 38, further comprising the following operations:

    continuously streaming video of a background scene; and

    setting a character against the background.

40. The method of claim 39, wherein the setting operation comprises presenting a series of individual video clips that are joined into the appearance of a continuous streaming image of the character.

41.   The method of claim 40, wherein the setting operation further comprises providing motion of the character in a time-dependent manner based on interaction with the human operator.

42.   A method for presenting a digital environment for an interaction, comprising the following operations:

presenting a background;

setting a character against the background;

presenting a three-dimensional representation of a playing area; and

presenting a two-dimensional representation of the playing area; and

wherein the three-dimensional representation of the playing area and the two-dimensional representation of the playing area are presented simultaneously.

43.   The method of claim 42, wherein the setting operation comprises presenting a continuously streaming video of the character, and wherein the character is a representation of a real-world potential player.

44.   The method of claim 42, wherein the setting operation comprises presenting a continuously streaming animation of the character, and wherein the character is an opponent in a game.

45.   The method of claim 42, wherein the setting operation comprises presenting a series of individual video clips that are joined into the appearance of a continuous streaming image of the character.

46.   The method of claim 42, wherein the setting operation comprises presenting a series of individual animation clips that are joined into the appearance of a continuous streaming image of the character.

47. The method of claim 42, further comprising the operation of controlling the character in response to actions of a human operator.

48. The method of claim 42, further comprising the operation of controlling the character in response to inaction of a human operator.

49. The method of claim 42, further comprising the operation of continuously controlling the character in response to actions and inaction of a human operator.

50. The method of claim 42, further comprising the operation of controlling the character in response to the time between moves by a human operator.

51. The method of claim 42, further comprising the operation of affecting the situation state of the environment responsive to an action or to inaction by the human operator.

52. The method of claim 42, further comprising the operation of using a series of triggers to control the character with responses that are different depending on a game situation.

53. The method of claim 42, further comprising the operation of using a series of triggers to control the character with responses that are different depending on a game situation, and wherein the responses include movements both during and between game moves of the character and a human operator.

54. The method of claim 42, further comprising the operation of using triggers to control responses of the character, wherein the triggers include a human operator's sequence of moves during a game.

55.   The method of claim 42, further comprising the operation of using triggers to control responses of the character, wherein the triggers include a human operator's strategic position in a game.

5   56.   The method of claim 42, further comprising the operation of using a current situation state of the interaction to determine a response in the environment by the character, wherein the character is a computer-controlled player in a game.

57.   The method of claim 42, further comprising the operation of interacting decision

10   logic with a video controller to modify the character.

58.   The method of claim 42, further comprising the operation of modifying the character by making a direct change to the character.

15   59.   The method of claim 42, further comprising the operation of modifying the character using a library of videos.

60.   The method of claim 42, further comprising the operation of modifying the character using a library of animations.

20

61.   The method of claim 42, wherein the character is an animated character, and wherein the animation is a cartoon.

62.   The method of claim 42, wherein the character is an animated character, and

25   wherein the animation is cell animation.

63.   The method of claim 42, wherein the character is an animated character, and wherein the animation is clay animation.

64.   The method of claim 42, further comprising the following operations:

inputting an operator's choice of action or the operator's inaction to a situation state module;

updating a current state based on the operator's action or inaction; and

using the current state by a decision logic to determine a response in the environment by the character, wherein the character is a computer-controlled player.

65.   The method of claim 64, further comprising the operation of putting the operator's course of action in place and sending it to a display.

66.   The method of claim 64, further comprising the operation of using the current state by the decision logic to determine how to control the character and the background in the environment.

67.   The method of claim 66, further comprising the operation of putting a selection of the control of the character and a control of the background in place, and sending them to a display.

68.   The method of claim 42, further comprising the following operations:

inputting the operator's choice of action or the operator's inaction to a situation state module;

updating a current state based on the operator's action or inaction; and

using the current state by a decision logic to determine how to control the background in the environment.

69.   The method of claim 42, further comprising the operation of relating a current situation state and current triggers to a course of action and to videos to determine the most appropriate update to the environment.

70.   The method of claim 42, further comprising the operation of presenting courses of action to the display after utilizing appropriate decision logic, wherein the decision logic is a computer algorithm.

5   71.   The method of claim 42, further comprising the operation of interacting with a video controller to modify the character and the background in the environment after utilizing appropriate decision logic.

72.   The method of claim 42, wherein the operation of presenting the background

10   comprises continuously streaming video.

73.   The method of claim 42, further comprising the operation of providing information regarding the current situational state on a display.

15   74.   The method of claim 42, wherein the interaction is a game, and wherein the playing area includes a playing board, and wherein the playing area further includes playing pieces.

75.   The method of claim 42, wherein the two-dimensional representation of the

20   playing area and the three-dimensional representation of the playing area include the state of the interaction.

76.   The method of claim 42, wherein the two-dimensional representation of the playing area and the three-dimensional representation of the playing area include the

25   positions of pieces on a playing board representing the state of a game.

77.   The method of claim 42, wherein the three-dimensional representation of the playing area is a view as would be seen in real-life from a player's perspective.

78.   The method of claim 42, wherein the two-dimensional representation of the playing area is a top-down view of the playing area, and is positioned in front of the background, and is transparent.

79.   The method of claim 42, wherein the two-dimensional representation of the playing area shows all corresponding movement in both time and space from a game shown in the three-dimensional representation.

80.   A method for presenting a virtual reality setting for an interaction, the method comprising the following operations:

presenting a background;

setting a character against the background;

inputting an operator's choice of action or inaction;

updating a current state based on the operator's action or inaction;

using the current state by a decision logic to determine a response in the setting by the character; and

modifying the character using a library of videos.

81.   The method of claim 80, further comprising the operations of:

using the current state by the decision logic to determine how to control the background in the setting;

interacting with a video controller to modify the background after utilizing the decision logic; and

sending a selection of control of the background to a display.

82.   The method of claim 81, wherein the operation of presenting the background comprises continuously streaming video.

83.   The method of claim 82, further comprising the following operations:

presenting a three-dimensional representation of a playing area; and

presenting a two-dimensional representation of the playing area; and

wherein the three-dimensional representation and the two-dimensional representation are simultaneously presented on a single video screen.

84. A method for presenting a virtual reality environment for an interaction, the method comprising the following operations:

presenting a streaming video of a real-world background scene;

presenting a series of individual video clips that are joined into the appearance of a continuous streaming image of a real-world character;

inputting an operator's choice of action or inaction;

updating a current state based on the operator's action or the operator's inaction;

using the current state by a decision logic to determine a response by the character; and

modifying the character.

85. The method of claim 84, further comprising the following operations:

using the current state by the decision logic to determine how to control the background in the environment; and

interacting with a video controller to modify the background after the decision logic uses the current state.

86. The method of claim 85, further comprising the following operations:

presenting a three-dimensional representation of a playing area; and

simultaneously presenting a two-dimensional representation of the playing area to transmit information regarding a game to an operator and to permit the operator to simultaneously observe action in both two and three dimensions.

87. A method for presenting a virtual reality setting for an interaction, the method comprising the following operations:

presenting a streaming video of a real-world background scene;

presenting a series of individual video clips that are joined into the appearance of a continuous streaming image of a real-world character;

inputting an operator's choice of action or inaction;

updating a current state based on the operator's action or inaction;

using the current state by a decision logic to determine a response in the setting by the character; and

using the current state by the decision logic to determine a selection of how to control video of the character and how to control video of the background.

88. The method of claim 87, further comprising the following operations:

presenting a three-dimensional representation of a playing area; and

simultaneously presenting a two-dimensional representation of the playing area to transmit information regarding a game to an operator and to permit the operator to simultaneously observe action in both two and three dimensions; and

wherein the character's response is a response in a game, and wherein the character is a computer-controlled opponent in the game.

89. A software product tangibly embodying a computer program for presenting a virtual reality digital environment for an interaction between a character and a human operator in a continuous fashion, the program comprising:

the situation state of the digital environment;

a course of action;

a library of videos;

a video controller; and

decision logic for relating current situation state triggers to the course of action and to the library of videos to determine a most appropriate update to the digital

environment, and for interacting with the video controller to modify a character and a background in the virtual reality environment presented on a display.

90.   The software product of claim 89, wherein the triggers include the human operator's sequence of moves during a game and the human operator's strategic position in the game.

91.   The software product of claim 89, wherein the triggers include triggers for controlling the character in response to game situations, wherein the game situations include actions and inaction by the human operator, and include the time between moves by the human operator.